

Work Order ID 109276

November-18-13 10:11:43 AM

109276

Page 1

Item ID: D3633-3

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Co - Pilot Extension

Start Date: 11/18/13 Start Qty: 10.00

10

Cust Item ID:

Required Date: 11/18/13 Req'd Qty: 10.00

10

Customer:

Reference: re-inspect

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3633

Rev A

120

QC8- Inspect parts - second check

0.00

120

QC

Quality Control

Memo

PULL FROM STK:

10 X D3633-3 B37025

RE-INSPECT TO DRWG (P111-C)

0.00

130

Identify as per dwg & Stock Location:

0.00

130

Packaging

Packaging

Memo

0.00

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Quality Control

Memo

0.00

Cancel per Pat/Eric

W 13.11.20

Picklist Print

November-18-13 10:11:43 AM

Page 1

Work Order ID: 109276
Parent Item: D3633-3
Parent Item Name: Co - Pilot Extension

Start Date: 11/18/13 **Required Date:** 11/18/13
Start Qty: 10.00 **Required Qty:** 10.00

Comments: IPP Rev:A New Issue 07-12-19 DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3633-3 Co - Pilot Extension		Manufactured	No				Each	0.0000		10			

37025

United States of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SH4786NM

This certificate, issued to

**DART Aerospace USA, Inc.
19717 62nd Avenue South, Suite E-101
Kent, WA 98032**

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.

<i>Original Product—Type Certificate Number:</i>	H9EU
<i>Make:</i>	Eurocopter France
<i>Model:</i>	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, and AS350D1

Description of the Type Design Change: Fabrication and Installation of dual control collective and cyclic sticks per Geneva Aviation Master Drawing List GA122, Revision B, dated May 30, 2003, or later Federal Aviation Administration (FAA) approved revision.

Limitations and Conditions: Approval of this change in type design applies to the above model aircraft only. This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the relationship between this change and any of those other changes in type design, will introduce no adverse effect upon the airworthiness of that aircraft. A copy of this certificate must be maintained as part of the permanent records for the modified aircraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: September 18, 1989

Date reissued: 6/27/07; 3/5/09; 11/8/12

Date of issuance: November 6, 1989

Date amended: November 6, 2007



By direction of the Administrator


(Signature)

EA Acting Manager, Seattle Aircraft Certification Office
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.



Transport Canada Transports Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace USA, Inc.
19717 62nd Ave. South
Suite E-101
Kent, Washington
United States of America 98032

Number: SH93-73

Issue No.: 4

Approval Date: December 22, 1993

Issue Date: January 31, 2013

Responsible Office:

Pacific

Aircraft/Engine Type or Model:

Eurocopter France AS 350 Series

Canadian Type Certificate or Equivalent:

H-83

Description of Type Design Change:

Installation of Dual Control Collective and Cyclic Sticks in accordance with FAA STC SH4786 NM.

Installation/Operation Data,

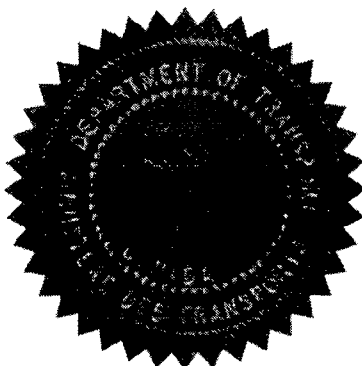
Required Equipment

And Limitations:

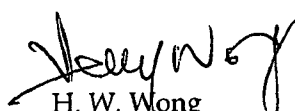
Fabrication and Installation of dual control collective and cyclic sticks are to be carried out in accordance with FAA approved Geneva Aviation Drawing List GA122, Revision B, dated May 30, 2003 *.

(* or later FAA approved revisions)

— End —



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.


H. W. Wong
For Minister of Transport

Canada

GA122-1
Revision C
August 7, 2009

Installation Instructions
for
Replacement Copilot Flight Controls,
Pilot or Copilot Cyclic Stick and/or Hand Grips

1.0 Introduction

- 1.1. The steps below are to be followed when installing replacement Copilot Flight Controls, Pilot or Copilot Cyclic Stick and/or Hand Grips in accordance with STC SH4786NM. Read all steps before starting the installation.
- 1.2. There are several options which are approved by this STC. They are grouped by Pilot or Copilot flight control sections.
- 1.3. Pilot Flight Control Options:
 - A. Kit P/N P111: Install Geneva Grip G10204 onto existing Eurocopter (EC) Bendix Cyclic Stick.
 - B. Kit P/N P107-P: Install the Geneva Pilot Bendix Cyclic Stick G12425-26 and Geneva Grip G10204.
 - C. Kit P/N P107-PX: Install the Geneva Pilot Bendix Cyclic Stick G12425-26 using EC Bendix Grip #PM22880U.
 - D. Kit P/N P107-PZ: Install Geneva Pilot Cyclic Stick G12316-26 using EC Crouzet Grip #83-910-004.
- 1.4. Copilot Flight Control Options:
 - A. Kit P/N P111: Install Geneva Grip G10204 onto existing EC Bendix Cyclic Stick.
 - B. Kit P/N P107-CZ: Install Geneva Copilot Cyclic Stick G12324-26 using EC Crouzet Grip #83-910-004. Note: Crouzet Grip is sold separately by Eurocopter and not included in this kit.

C. Kit P/N P107-C: Install the complete Copilot replacement flight controls kit comprised of the following:

- Copilot Bendix Cyclic Stick G12426-26
- Grip G10204
- Copilot Collective Stick G10201 with mounting hardware
- EC standard Yaw Control pedals and mounting hardware.

1.5. Electrical Connections: Refer to the EC Wiring Diagrams Manual (WDM) section 67 for configuration specific wiring diagrams. All wiring routing and connections are to be performed IAW EC Standard Practices Manual.

2.0 Installation of Kit P111: Geneva Grip G10204 and existing EC Bendix Cyclic Stick.

- 2.1. Refer to EC MWC's 67.10.00.402.
- 2.2. Remove existing cyclic stick in accordance with MWC.
- 2.3. Remove existing Bendix grip from cyclic stick. Be sure to label wire numbers when disconnecting cable harness from switches.
- 2.4. Remove cable harness from stick.
- 2.5. Refer to drawing G12907, add extension G10205 to top of stick.
- 2.6. Install cable harness into stick and connect cables to switches in grip G10204. Mount grip onto stick.
- 2.7. Reinstall cyclic stick into airframe and connect wiring.
- 2.8. Perform functional test as described in Section 8.0.

3.0 Installation of Kit P107-P: Geneva Pilot Bendix Cyclic Stick G12425-26 and Geneva Grip G10204.

- 3.1. Refer to EC MWC's 67.10.00.402.
- 3.2. Remove existing EC cyclic stick in accordance with MWC.
- 3.3. Remove existing grip from EC cyclic stick. Be sure to label wire numbers when disconnecting cable harness from switches.
- 3.4. Remove cable harness from EC cyclic stick to be reused later.
- 3.5. Refer to drawing G12907, add extension G10205 to top of stick.
- 3.6. Install cable harness into Geneva Bendix cyclic stick and connect cables to switches in new grip G10204. Mount grip onto stick.
- 3.7. Install Geneva Bendix cyclic stick into airframe and connect wiring.
- 3.8. Perform functional test as described in Section 8.0.

4.0 Installation of Kit P107-PX: Geneva Pilot Bendix Cyclic Stick G12425-26 and EC Bendix Grip #PM22880U.

- 4.1. Refer to EC MWC's 67.10.00.402.
- 4.2. Remove existing EC cyclic stick in accordance with MWC.
- 4.3. Remove existing Bendix grip from EC cyclic stick. Be sure to label wire numbers when disconnecting cable harness from switches.
- 4.4. Remove cable harness from EC cyclic stick to be reused later.
- 4.5. Install cable harness into Geneva Pilot Bendix Cyclic Stick G12425-26 and connect cables to switches of EC Bendix grip. Mount grip onto stick.
- 4.6. Reinstall cyclic stick into airframe and connect wiring.
- 4.7. Perform functional test as described in Section 8.0.

5.0 Installation of Kit P107-PZ: Geneva Pilot Cyclic Stick G12316-26 and EC Crouzet Grip #83-910-004

- 5.1. Refer to EC MWC's 67.10.00.402.
- 5.2. Remove existing EC cyclic stick in accordance with MWC.
- 5.3. Remove existing Crouzet grip from cyclic stick. Be sure to label wire numbers when disconnecting cable harness from switches.
- 5.4. Remove cable harness from EC cyclic stick to be reused later.
- 5.5. Install cable harness into Geneva Pilot Cyclic Stick G12316-26 and connect cables to switches of Crouzet grip. Mount grip onto stick.
- 5.6. Install Geneva Pilot Bendix Cyclic Stick into airframe and connect wiring.
- 5.7. Perform functional test as described in Section 8.0.

6.0 Installation of Kit P107-CZ: Geneva Copilot Cyclic Stick G12324-26 and EC Crouzet Grip #83-910-004

- 6.1. Refer to EC MWC's 67.10.00.401.
- 6.2. Crouzet Grip is sold separately by Eurocopter and is not included in this kit.
- 6.3. Install cyclic wiring harness (not included) into Geneva cyclic stick G12324-26 and connect cables to switches in Crouzet grip. Mount grip onto stick.
- 6.4. Install Geneva cyclic stick into airframe using quick release pin and connect wiring.
- 6.5. Perform functional test as described in Section 8.0.

7.0 Installation of Kit P107-C: Copilot Replacement Flight Controls

- 7.1. Refer to EC MWC's 67.10.00.401.
- 7.2. Refer to drawing G12907, add extension G10205 to top of stick.
- 7.3. Install wiring harness into Geneva Bendix cyclic stick and connect cables to switches in grip G10204. Mount grip onto stick.
- 7.4. Install Geneva Bendix cyclic stick into airframe using quick release pin and connect wiring.
- 7.5. Install Geneva Collective Stick G10201, rubber boot and protective cover into airframe with hardware provided in kit.
- 7.6. Install Yaw Control Pedals into airframe using quick release pins.
- 7.7. Perform functional test as described in Section 8.0.

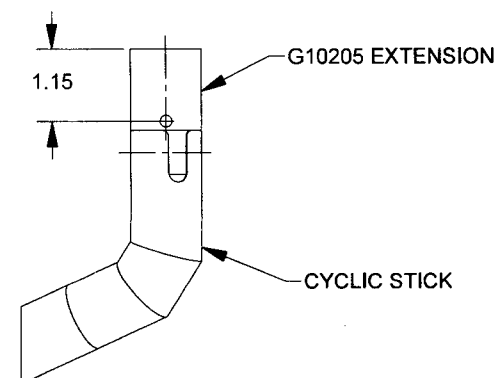
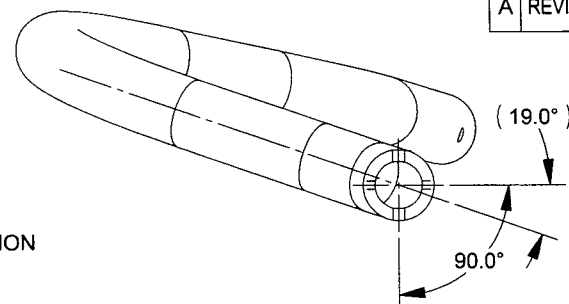
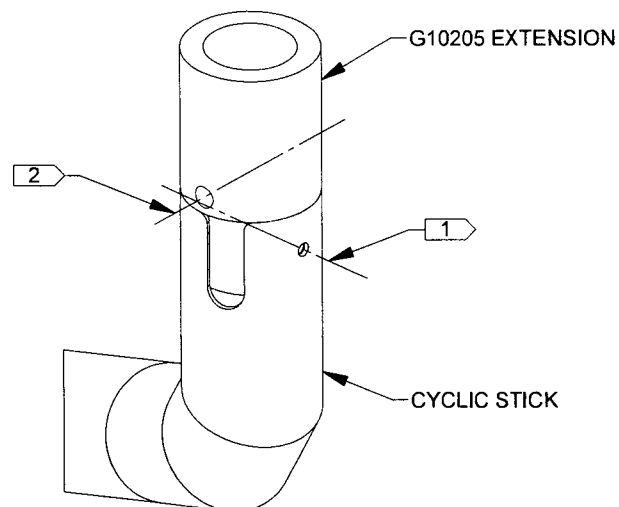
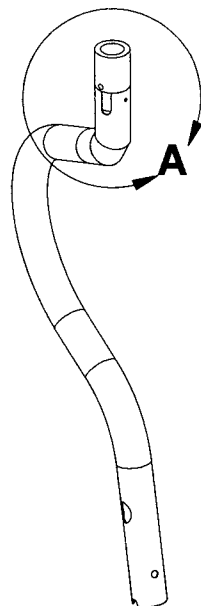
8.0 PROJECT COMPLETION AND DOCUMENTATION.

- 8.1. Perform a functional test of the controls contained within the stick grip. Assure replacement flight controls are functioning properly.
- 8.2. This installation is considered a major alteration and must be inspected and returned to service per applicable regulations. Update weight and balance information per Eurocopter maintenance information.

LOG OF REVISIONS

REVISION LEVEL	DATE OF REVISION	PAGES	DESCRIPTION OF CHANGE	APPROVAL
--	11/21/89	All Pages	Initial Release	GC
A	10/3/90	All Pages	Removed references to GA107-3 and G10251	GC
B	5/30/03	All Pages	Updated format to OEM Standards; Added Option E (Collective Switch Box)	CLB
C	8/7/09	All Pages	Removed Collective Switch Box Option E; Added new cyclic sticks to STC replacing G10202	CLB

REVISIONS		
REV	DESCRIPTION	APPROVAL DATE
A	REVISED EFFECTIVE STICK LIST	8/10/09 CLB



DETAIL A
SCALE 1 : 1

INSTRUCTIONS

- 1 BACK-DRILL $\phi .129$ HOLE THROUGH EXTENSION USING EXISTING HOLES IN STICK; INSTALL EXTENSION USING (2) CR3213-4-3 RIVETS
 - 2 LAYOUT AND DRILL $\phi .189$ HOLE THROUGH EXTENSION AT 90° TO EXISTING HOLE;
- BOTTOM SCREW IN GRIP WILL MOUNT THROUGH THIS HOLE

THESE INSTRUCTIONS PROVIDE FOR THE INSTALLATION OF CYCLIC GRIP G10204 ONTO THE FOLLOWING:

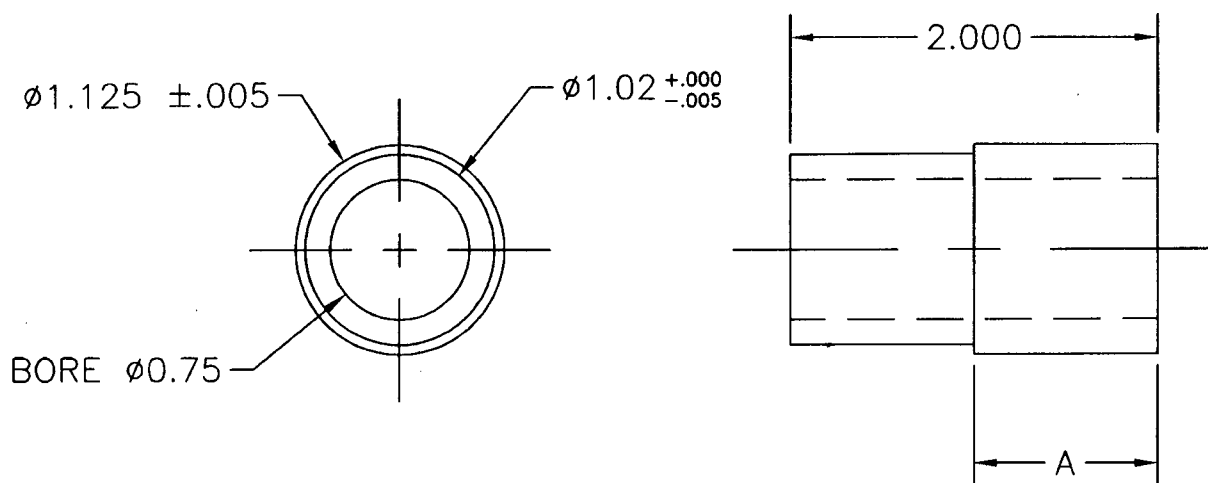
- EUROCOPTER BENDIX STICKS
- GENEVA RH BENDIX STICK G12425-26
- GENEVA LH BENDIX STICK G12426-26

BREAK SHARP EDGES UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DESIGNED CLB	DATE 1/30/07	GENEVA AVIATION
TOLERANCES ARE: FRACTIONS DECIMAL ANGLES $\pm .1875$ X $\pm .050$ $\pm 2^\circ$ XX $\pm .030$ XXX $\pm .010$		DRAWN	DATE	
		CHECKED	DATE	
		APPROVED CLB	DATE 1/30/07	
THIS DOCUMENT INCLUDES INFORMATION PROPRIETARY TO GENEVA AVIATION AND SHALL NOT BE USED OR DUPLICATED BY ANYONE WITHOUT THE WRITTEN PERMISSION OF GENEVA AVIATION, INC.				Title CYCLIC GRIP INSTALLATION
Drawing Number G12907				REV A
Part No. GA122 SIZE B Scale NONE Sheet 1 of 1				



DESIGN CLB	DRAWN BY SC	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3633	REV. A SHEET 1 OF 1
DATE 07.05.14		TITLE CYCLIC STICK EXTENSION	SCALE 1:1
A	07.05.14	NEW ISSUE: REPLACES G10203/G10205	

RELEASED
07-08-08 [Signature]



P/N	DESCRIPTION	DIM. "A"	REPLACES GENEVA P/N
D3633-1	PILOT CYCLIC STICK EXTENSION	1.00 ± 0.020	G10203
D3633-3	CO-PILOT CYCLIC STICK EXTENSION	1.30 ± 0.020	G10205

NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) ROUND BAR
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR
PER AMS-QQ-A-200/8 (OR AMS 4160)
(REF. DART SPEC M6061T6R1.250)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 6) IDENTIFY WITH DART P/N "D3633-X" USING FINE POINT PERMANENT INK MARKER

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